United Nations

A/HRC/33/41/Add.3

General Assembly

Distr.: General
2 September 2016

English only

Human Rights Council
Thirty-third session
Agenda item 3
Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his mission to the Republic of Korea: comments by the State

Note by the Secretariat

GE.16-15238(E)

1615238

Please recycle

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his mission to the Republic of Korea: comments by the State*

I. Introduction

1. The Government of the Republic of Korea welcomes the visit of the UN Special Rapporteur (SR) on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes to the Republic of Korea from 12 to 23 October 2015 and is pleased to have had a constructive dialogue with the SR during his visit.

2. The Government of the Republic of Korea also welcomes the high appreciation of the SR on its legal framework for hazardous substances and wastes, and is pleased with his recognition of relevant government policies. The Government takes note of his recommendations to minimize negative impact of hazardous substances and wastes on human rights, and will give due consideration to them.

3. The Government of the Republic of Korea thanks the SR for the opportunity to make the following comments.

II. Recent changes to the legal framework for hazardous substances and wastes

4. **Paras 10, 41, 106(a), (c):** The *Act on Registration, Evaluation, etc. of Chemical Substances* (ARECS) was enacted in May 2013 and enforced in January 2015 aiming to protect life and property of people and the environment from chemical substances. The act is designed for preventing damages on public health and the environment caused by chemicals, managing chemicals properly, and responding swiftly to chemical disasters.

5. The key content of ARECS is obliging manufacturers and importers of chemicals to generate hazard and risk data on the chemicals and make them available to downstream users. As ARECS is a similar system with EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) NO 1907/2006]), it needs to be understood in comparison with EU REACH.

6. Chemical substances fall into two categories: the existing substances (the so-called phase-in substances) that are already placed on the market, and the new substances (the so-called non-phase-in substances) that newly enter the market. Under EU REACH, both existing and new chemical substances shall be registered with their hazard data when manufactured or imported over 1 ton a year in quantity.

7. ARECS requires all new substances, even below 1 ton a year, to be registered with their hazard data. It means that ARECS imposes stronger obligation than EU REACH in terms of new substances. As for the registration of existing substances, EU REACH and ARECS have differences. ARECS has a system called "Priority Existing Chemicals (PECs)" for step-by-step expansion of the list of existing substances obliged to be registered. When a substance is deemed to have potential to cause risks, the Government

* Circulated in the language of submission only.

may designate the substance as a PEC and require the manufacturer or importer to generate and register the hazard data even when the quantity is less than one ton.

8. In a staged manner, the Government will expand the list of PECs to the point when all of the approximately 15,800 existing substances distributed in the domestic market are registered with their hazard data. However, ARECS is still at an early stage of the implementation, infrastructures for generating the hazard data are not sufficient, while businesses are not in the full readiness. Taking it into account, the Government first designated 510 substances that are distributed in large quantity and internationally well-known with their hazards as PECs and required them to be registered by 2018.

9. The Government is planning to continue designating more existing substances as PECs to be registered later than 2018, and making vigorous efforts for earlier designations of additional PECs by strengthening related infrastructures. Meanwhile, the Government already has hazard data of 8,459 existing substances out of the 15,800, as it conducted assessments on those substances from 1992 in accordance with the former *Toxic Chemicals Control Act* (TCCA).

10. EU REACH has a policy to gradually expand the list of existing substances subject to the registration based on the quantity of use throughout a ten-year period from the introduction of the system. In terms of giving enough time for registration of existing substances, ARECS and EU REACH share a same intent.

11. ARECS neither limits the scope of substances subject to registration to industrial substances known as hazardous nor is premised solely on assessment data of the European authorities. When designating PECs, the Government considers reliable overseas data on risk and hazard assessment of the chemicals, as well as the quantity distributed and domestic data. Assessment data of the European authorities is used only one of the references in determining PECs. It is the Government itself that sets priorities and makes decisions on PECs. In addition, unnecessary duplication of animal (especially vertebrates) tests can be avoided by using existing data, like under EU REACH, if appropriate.

12. **Para 106(c)**. The *Commercial Act* amended by Act No. 10600, on 14 April, 2011 requires listed company with certain scale of assets to have one or more compliance officer under Article 542-13. And in April, 2012 the Ministry of Justice established the "Model Compliance Guidelines". According to the *Commercial Act* and the Guidelines referred above, compliance officer shall manage business activities to prevent legal risk that may be caused by violating the relevant legislations on hazardous substances. In this way, companies are being expected to exercise due diligence.

III. Institutional framework for chemicals management

13. None.

IV. Issues in focus

A. Protecting consumers from hazardous substances in products

14. **Paras 30-36, 41-42, 106(j)**. In 1991, TCCA entered into force, and the Government's chemical hazard review system was introduced. A company that intends to manufacture or import a new chemical substance shall take the hazard review before manufacturing or importing the substance. Hazard review on existing substances that had been placed on the market prior to the enforcement of TCCA was conducted by the Government with its budget.

15. In 1996, Yugong (now SK Chemical) requested a hazard review of PHMG for the use of antimicrobial for carpets. The result said that, as a high polymer compound, PHMG had low level of toxicity and volatility and that no adverse health impact on consumers was predicted when it would be used for carpet. Hence, the Government notified Yugong that the substance was not a toxic substance. The hazard review on PGH was requested by Sun Plus Co., Ltd. in 2003 for the use of antimicrobial for rubbers, woods and textile. The Government notified Sun Plus that PGH was not a toxic substance as it did not meet the standards for designating toxic substances.

16. In 2001, UK-based Reckitt Benckiser (RB) acquired the Korea-based Oxy Co., Ltd (Oxy) and the Oxy Reckitt Benckiser (Oxy RB) was established. It was around 2001 when Oxy RB started to manufacture and sell humidifier disinfectant that contained PHMG which had undergone the Government's hazard review for the usage of antimicrobial for carpets but not for humidifier disinfectant. The humidifier disinfectant OxySakSak first came to the market in 1998 by Oxy, but at the time the product's ingredient was Preventol R80, not PHMG. Until 2011, about 600,000 humidifier disinfectants were sold annually.

17. Around 2001, the Government was not able to recognize that humidifier disinfectant products containing PHMG were being manufactured and sold, as Oxy RB withheld the information that they used the substance. Using PHMG for humidifier disinfectant meant that the substance's main exposure route was changed from skin into respiratory system, yet no additional hazard test was conducted for the new use. Consequently, the negligence of Oxy RB which did not fully verify the safety of its product directly led to the humidifier disinfectant incident.

18. On the request of the Seoul Asan Medical Center that had experienced occurrences of patients suffering lung injury with unknown causes, the Korea Centers for Disease Control and Prevention (KCDC) under the Ministry of Health and Welfare began an epidemiological investigation in April 2011. Finding that the products might have caused pulmonary fibrosis, the Ministry of Health and Welfare advised the public to refrain from using the concerned products in August 2011, and issued an order to withdraw humidifier disinfectant products from the market in November 2011.

19. In February 2012, the Government announced the final result of the epidemiological investigation confirming that the cause of the lung injury was humidifier disinfectant. The Government identified that PHMG and PGH had inhalation toxicity and caused pulmonary fibrosis, but could not confirm those properties in CMIT and MIT.

20. In December 2011, relevant government agencies together established the Comprehensive Measures for Safety Management on Household Chemical Products to tighten the safety management of household chemical products. The Comprehensive Measures re-categorized humidifier disinfectant as a quasi-drug while requiring re-assessment of the risks of raw materials used for household chemical products of safety concerns and developing safety standards for new products and previously uncontrolled products. In 2012 and 2013, PHMG, PGH, CMIT and MIT, all of which were ingredient substances of humidifier disinfectants, were designated as toxic substances. In July 2012, the Korean Fair Trade Commission imposed penalty surcharges to humidifier disinfectant sellers including Oxy RB, Homeplus and Cefu for falsely indicating product information. Oxy RB filed lawsuit against the penalty, but lost the case at the Supreme Court in December 2014.

21. In August 2013, the Government decided to pay medical and funeral expenses to victims first, and exercise the right to indemnity against the companies that had caused the damages later. It was a decision to help victims who were struggling with economic hardships during prolonged lawsuits or needed to undergo costly lung transplant surgery. In October 2013, the Government designated diseases caused by humidifier disinfectant as

"environmental disease" under the *Environmental Health Act* which set legal basis for better supporting the victims.

22. The Government received reporting from a total of 530 persons who applied for the investigation to decide whether their health damages were caused by humidifier disinfectant through two reporting periods. Of those, 221 alleged victims including 95 who have died were acknowledged with the causation between humidifier disinfectant and their health damages. Since July 2014, the Government has been paying medical expenses to the 221 victims, and paid funeral and medical expenses to the bereaved families. The Government ran the third reporting period in 2015, in which 752 persons applied for the investigation. While the investigation on the cases reported during the third period is still underway, the fourth reporting period is currently open to the public since April 2016.

23. The Government has acknowledged victims who suffer lung injuries that have strong causal relationship with humidifier disinfectant. Taking one step further, the Committee on Investigation and Judgement of Humidifier Disinfectant Damage convened on 28 April 2016 to collect expert opinions about mild damages such as rhinitis and bronchitis and possibility of health damages other than lung injury. Based on the committee discussion, the Government decided to work further to clarify the causal relationship and establish damage recognition criteria required for their judgement by strengthening ongoing survey and research activities. Through the efforts, the Government will come up with measures to provide remedy to those victims who suffer from health damages other than lung-related illnesses.

24. From the second half of 2016, victims of severe damages will be provided with living expenses and nursing costs from the Government, in addition to medical and funeral expenses.

25. Preventive measures also have been taken to avoid accidents similar to the humidifier disinfectant incident. In January 2015, ARECS entered into force. The Act requires chemicals manufacturers to register new use of substances and to inform the registered uses of their substances to downstream users. In other words, a manufacturer who intends to change the use of a substance shall register the hazard data again.

26. Also, 15 types of household chemical products including sterilizer, insecticide, and preservative were designated as "product of risk concerns", and the safety and labelling standards were established. Recently, the Government is working to introduce the approval and authorization systems for biocidal substances and the products, so that only safe products can be placed on the market.

27. **Para 43**. As this issue requires a medical and scientific approach in its investigation, the judgement result of the Committee on Lung Injury Investigation regarding the causal relationship between respiratory diseases and usage of humidifier disinfectant was needed to be reflected in the criminal investigation. As such, it took quite a long time to investigate the numerous victims and those affiliated, and to analyze a large amount of baseline data. The Prosecutors' Office is conducting thorough investigation of all raised points of allegations.

28. **Para 45**. The decision was made in consideration of evidence presented until the closure of first-instance defense arguments. The court deemed the government does not hold the responsibilities of intention, negligence, etc. based on the factual grounds that "it is difficult to recognize the fact that the humidifier disinfectant caused deaths by acute interstitial lung disease to other infants and children prior to the deaths of plaintiff's children." The case remains pending in the Seoul High Court as case number 2015Na2014486 as an appeal was filed by the plaintiffs.

B. Workers

29. **Para 63**. Once an accident has been confirmed as a work-related one, benefits, such as medical care benefits intended to cover medical treatment, wage replacement benefits for period during which the worker is unable to work due to medical care, disability benefits, survivors benefits for bereaved families and nursing benefits, are paid to help the worker achieve an income level equivalent to that he or she enjoyed before the accident. Apart from such benefit payments, various compensatory supports, including rehabilitation support, psychotherapy, counselling program, vocational training and livelihood security loans, are provided to help the worker promptly recover his or her condition prior to the accident.

30. **Para 75**. Although it is a general principle that the burden of proof falls on the claimant, it is not easy for workers suffering from work-related diseases to prove causation. Considering this, the Korea Workers' Compensation and Welfare Service enhanced its accident investigations, including on-site investigations and request for workplaces to submit related data. In addition, the burden of proof imposed on workers has been reduced by further specifying and subdividing criteria for recognizing work-related diseases and adding new criteria for diseases that were not recognized before. 14 carcinogens, 14 substances that can cause respiratory diseases, 8 substances that can cause acute poisoning, 35 new hazards, and new diseases, including 12 occupational cancers, chronic obstructive pulmonary disease, posttraumatic stress disorder and hypothermia, were added in June 2013. The Government will continue its efforts to improve the industrial accident compensation insurance system to better protect workers' rights and interests.

31. **Para 75**. The Government significantly improved the criteria for recognizing work-related diseases in 2013. For example, the criteria for recognizing occupational cancers were revised in 2013 to expand the scope of hazardous substances, such as X-ray and gamma-ray, from 11 to 23 substances and the scope of occupational cancers from 9 to 21 cancers.

32. **Para 76**. Immediate reporting obligation of all chemical accidents in all business sites was introduced in 2015 with the general revision of TCCA for the purpose of ensuring all relevant government agencies and stakeholders jointly respond to chemical accidents to prevent adverse impacts of chemical accidents from being proliferated.

C. Children

33. **Para 87**. The Ministry of Education and the Ministry of Culture, Sports and Tourism jointly provided funds and have completed replacing the artificial grass in all 173 primary, secondary and specialized schools which were found to have toxic substances above the permissible levels from 2015 to May 2016. Furthermore, municipal offices of education carry out inspections every three to five years to test for toxic substances in the artificial grass in school playgrounds to ensure students' safety.

34. **Para 89**. In an effort to protect the health of people including children from hazardous substances, relevant ministries and agencies of the Government together establish the Comprehensive Plan on Environmental Health every 10 years pursuant to the *Environmental Health Act*. Meanwhile, the Environmental Health Committee, which consists of relevant government agencies and experts, was organized and operated to discuss and deliberate matters relating to environmental health.

D. Communities living close to hazardous conditions

35. **Paras 93-96**. Recognizing significantly increasing environment-related complaints from areas around Geomuldae-ri, Gimpo where many small-scale factories stood, the Government has taken measures as follows. First, in February 2015, the Government conducted a massive crackdown on 86 business sites located in the area concerned. Of those, 62 business sites were found to violate laws. They were either prosecuted or taken under administrative measures. Especially, ten foundries caught emitting certain hazardous air pollutants were ordered to shut down. From May 2015 to April 2016, nationwide inspections were conducted targeting those areas in similar conditions with Gimpo, and the offenders were later brought to appropriate legal or administrative measures. Second, the Government recognizes the need to enhance current site regulations in order to prevent small-scale business sites from crowding within areas like Gimpo. Thus, the Government is preparing to establish a legal basis that would enable local governments to put restrictions on factory installation with their own discretion considering their circumstances, and is promoting strengthened environmental impact assessment when reviewing an authorization for installation of small-scale business sites.

36. **Para 98**. In 2014, the Chungcheongnam-do government carried out a survey on medical history of residents living in three areas in Chungcheong Province: near Dangjin's coal-fired thermal power plants, Dangjin steel mill complex, and Daesan petrochemical complex. The survey had two control groups consisting of residents in Cheongyang and Hongseong in Chungcheong Province. The survey analyzed heavy metals in blood sample including lead and cadmium, and in urine sample including mercury, arsenic, and cadmium. The survey found that residents living near Dangjin coal-fired thermal power plant had slightly higher levels of heavy metals in blood and urine, compared to the two control groups. However, the levels were below the WHO standards for heavy metal concentrations in human body. As of 2016, the Government is developing a plan for health impact surveys on residents living near power plants. The surveys are expected to be carried out from 2017 in a phased manner.

37. **Para 99**. The exclusion area of nuclear facilities in the Republic of Korea is regulated and overseen in accordance with the *Nuclear Safety Act* and its subordinate statutes (enforcement decrees, regulations on technical standards, notices). The scope of the exclusion area is to be within an area in which the range of exposure dose to residents is below the permissible levels for a fixed amount of time when an accident regarding radioactive material leakage occurs. The scope of the exclusion area ranges from 914m to 560m, considering the architectural design characteristics of nuclear facilities and meteorological conditions at facility sites.

38. **Para 100**. Relevant studies including that of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) indicates that there is no evidence that low radiation dose could cause cancers and that only effective dose with high radiation in excess of 0.1 Sv(100 mSv) could cause cancers. Accordingly, the connection between living nearby nuclear facilities and having cancer is not yet established as no case has been confirmed in which residents got cancer by being exposed to radiation under 0.1 mSv from nearby nuclear power plants.

39. **Para 103**. The Ministry of Environment and the Ministry of National Defense performed several investigations on environmental damage and epidemiological surveys in Boryeong, Chungcheong Province, and are making efforts to prevent environmental damages. In 2011, the Ministry of Environment asked the Korea Environment Corporation to conduct an investigation on environmental pollution in and around the air force shooting range and adjacent area in Boryeong. The investigation found that contaminants in the soil did not exceed permissible levels, while PCE (tetrachloroethylene) in ground water was

higher than its permissible level in some wells. The Government requested the Boryeong-si government to close down the wells and conduct monitoring on the wells outside the air force base. Boryeong city completed the shutdown of the concerned wells and has been carrying out the monitoring every year. In addition, the National Institute for Environmental Research (NIER) under the Ministry of Environment conducted epidemiological surveys on cancer rates in the adjacent villages from April 2012. The survey found the cancer incident rate was no higher than the city averages as well as unusual carcinoma related to environmental contamination. In order to prevent proliferation of hazardous substance caused by wastes from the firing exercise, the Ministry of National Defense and Air Force have been collecting empty cartridges every year since 2009. Also, every three years since 2009, maritime environment impact investigation has been conducted on sea water and maritime sediment in the vicinity of the shooting range. The results of most recent investigation in 2015 shows that there were no contaminations for all categories.

40. **Para 106(d)** Victims of environmental pollution such as those of the Gimpo case can file a lawsuit against the polluter companies. Otherwise, they can request an environmental dispute adjustment under the *Environmental Dispute Adjustment Act* which is an alternative way of dispute resolution.

41. As the *Act on Liability for Environmental Damage and Relief Thereof* entered into force in 2016, a legal basis has been established for prompt and full relief of damages from environmental pollution caused by business activities. The Act includes provisions on no-fault liability of business owners, presumption of causal relationship between environmental pollution and damage, victims' strong right to request information, business owners' obligation to purchase environmental liability insurance, and payment of "relief money" to victims.

V. Conclusion

42. In conclusion, the Government of the Republic of Korea would like to assure the SR of its continuous support for his mandate and wish to thank him again for the report on his mission to the country.